

Standards Map for
Graphing Using U.S. Census Data

1.0 Mathematical Analysis

Abstraction and symbolic representation are used to communicate mathematically.

- 1.1.3 apply mathematical knowledge to solve real-world problems and problems that arise from the investigation of mathematical ideas, using representations such as pictures, charts, and tables.

3.1 Mathematical Reasoning

Students use mathematical reasoning to analyze mathematical situations, make conjectures, gather evidence, and construct an argument.

- 3.1.1 apply a variety of reasoning strategies.
- 3.1.2 make and evaluate conjectures and arguments using appropriate language.

3.4 Modeling/Multiple Representation

Students use mathematical modeling/multiple representation to provide a means of presenting, interpreting, communicating, and connecting mathematical information and relationships.

- 3.4.4 represent numerical relationships in one-and two-dimensional graphs.
- 3.4.6 use concrete materials and diagrams to describe the operation of real world processes and systems.

3.5 Measurement

Students use measurement in both metric and English measure to provide a major link between the abstractions of mathematics and the real world in order to describe and compare objects and data.

- 3.5.4 use statistical methods and measures of central tendencies to display, describe, and compare data.
- 3.5.5 explore and produce graphic representations of data using calculators/computers.

3.7 Patterns/functions

Students use patterns and functions to develop mathematical power, appreciate the true beauty of mathematics, and construct generalizations that describe patterns simply and efficiently.

- 3.7.2 describe and represent patterns and functional relationships using tables, charts and graphs, algebraic expressions, rules, and verbal descriptions.

6.5 Patterns of Change

Identifying patterns of change is necessary for making predictions about future behavior and conditions.

- 6.5.2 observe patterns of change in trends or cycles and make predictions on what might happen in the future.

2.1 Information Systems

Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning.

- 2.1.3 systematically obtain accurate and relevant information pertaining to a particular topic from a range of sources, including local and national media, libraries, museums, governmental agencies, industries, and individuals.